PROJECT DEVELOPMENT PHASE

Team ID	PNT2022TMID50055
Project Name	Smart Waste Management System For Metropolitan Cities

DELIVERY OF SPRINT 3

```
import RPi.GPIO as GPIO
import yagmail
import time
import mysql.connector
TRIG=21
ECHO=20
dusbinLevelInper=0

confirmtion=0

GPIO.setmode(GPIO.BCM)
GPIO.setup(TRIG,GPIO.OUT)
GPIO.setup(ECHO,GPIO.IN)
GPIO.setup(19, GPIO.OUT)

def mailsender():
   if(confirmtion==3):
      mydb = mysql.connector.connect(
```

```
        host="192.168.143.95",
        user="root",
        password="mysqlpassword",
        database="IbmDataBase"
    )
    mycursor = mydb.cursor()

    confirmtion=0
    sql = "SELECT * FROM dsbn WHERE dusid =1"

    mycursor.execute(sql)
    myresult = mycursor.fetchall()

    Frommailadress="from@gmail.com"
    password="myapp password"

    yag = yagmail.SMTP(Frommailadress,password)
    yag.send("TO@gmail.com",
     "",
     "Level of the dustbin is  "+str(myresult[0][1])+
     "  locations of the dustbin  "+str(myresult[0][3])+" "+str(myresult[0][2])+"")

    print("sended successfull")
  else:
    print(confirmtion)

def DataBaseCon():

  mydb = mysql.connector.connect(
```

```
        host="192.168.143.95",
        user="root",
        password="mynewpassword",
        database="IbmDataBase"
    )
    mycursor = mydb.cursor()

    sql = "UPDATE dsbn SET dusLevel = "+str(dusbinLevelInper)+" WHERE dusId = '1'"
    mycursor.execute(sql)
    mydb.commit()

    print(mycursor.rowcount, "record(s) affected")



def ledblinkon():
     GPIO.output(19, GPIO.HIGH)

def ledblinkoff():
     GPIO.output(19, GPIO.LOW)

while True:
    print("distance measurement in progress")
    GPIO.output(TRIG,False)
    print("waiting for sensor to settle")
    time.sleep(0.2)
    GPIO.output(TRIG,True)
    time.sleep(0.00001)
    GPIO.output(TRIG,False)
```

```
while GPIO.input(ECHO)==0:
    pulse_start=time.time()
while GPIO.input(ECHO)==1:
    pulse_end=time.time()
pulse_duration=pulse_end-pulse_start
distance=pulse_duration*17150
distance=round(distance,2)
print("distance:",distance,"cm")
time.sleep(2)



if(distance>=60):
    dusbinLevelInper=0
    ledblinkoff()
elif(distance<=60 and distance>=45):
    dusbinLevelInper=25
    ledblinkoff()
elif(distance<=45 and distance>=30):
    dusbinLevelInper=50
    ledblinkoff()
elif(distance<=30 and distance>=10):
    dusbinLevelInper=80
    ledblinkoff()

else:
    dusbinLevelInper=100
    ledblinkon()
    confirmtion+=1
    mailsender()
```

```
DataBaseCon()
time.sleep(20)
```